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Water-Data Report 2006

09315000 GREEN RIVER AT GREEN RIVER, UT

Lower Green Basin
Lower Green Subbasin

LOCATION.--Lat 38°59'10", long 110°09'02" referenced to North American Datum of 1927, in NW ¼ NW ¼ SW ¼ sec.15, T.21 S., R.16 E., Emery County, UT, Hydrologic Unit 14060008, on right bank 1,400 ft upstream from railroad bridge, 0.9 mi southeast of town of Green River, 22.7 mi upstream from San Rafael River, at mile 117.6 upstream from mouth.

DRAINAGE AREA.--44,850 mi², of which about 4,260 mi² is noncontributing, including 3,959 mi² in Great Divide Basin in southern Wyoming.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1894 to October 1899, March 1905 to current year. Published as "at Blake" 1894-99, as "near Elgin" 1911, and as "at Little Valley, near Green River" 1910-23.

REVISED RECORDS.--WSP 918: 1895-1899. WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,040.18 ft above NGVD of 1929. Prior to November 6, 1914, staff, wire-weight, or chain gages at several sites within 7 mi of present site at various datums. November 6, 1914 to June 20, 1924, water-stage recorder at site 7 mi downstream at different datum. June 21 to September 18, 1924, chain gage, and September 19, 1924 to May 7, 1947, water-stage recorder at site 100 ft downstream at present datum. May 8, 1947 to September 7, 1994, water-stage recorder at site 900 ft downstream at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation above station. Flow regulated by Flaming Gorge Reservoir (see station 09234400) since November 1, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,100 ft³/s, Jun 27, 1917, gage height, 14.53 ft, site and datum then in use; minimum, 255 ft³/s, Nov 26, 1931; minimum gage height, 4.08 ft, Aug 1, Dec 5, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
May 28	0400	*21,300	*11.50

Minimum daily discharge, 1,120 ft³/s, Dec 10..

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,570	3,470	3,030	2,860	2,900	2,980	4,360	11,300	16,900	3,410	1,690	1,610
2	2,570	3,320	3,050	2,920	2,980	3,050	4,340	12,100	15,000	3,260	1,750	1,580
3	2,630	3,260	2,900	2,950	3,090	3,170	4,160	12,100	13,200	3,130	1,670	1,500
4	2,630	3,250	2,930	3,040	3,080	3,450	4,270	11,500	12,200	2,980	1,730	1,450
5	2,830	3,240	e2,600	3,090	3,130	3,960	4,420	11,400	11,700	2,920	1,810	1,480
6	2,910	3,230	e2,200	e3,150	3,030	3,930	4,380	11,800	11,600	2,860	1,800	1,480
7	2,970	3,240	e1,950	e3,100	2,990	4,020	4,680	12,300	11,600	2,800	1,870	1,480
8	3,100	3,200	e1,600	e3,050	2,960	4,130	5,160	12,100	11,700	2,760	1,850	1,630
9	3,120	3,190	e1,200	e3,000	3,060	4,090	5,470	11,800	11,800	2,950	1,870	1,420
10	2,970	3,200	1,120	e2,800	2,950	4,000	5,990	11,400	12,600	2,990	1,770	1,440
11	2,830	3,210	1,250	e2,710	2,920	3,920	6,980	10,900	12,900	2,900	1,720	1,470
12	2,880	3,210	e1,560	e2,500	3,010	3,860	6,880	11,100	12,700	2,830	1,630	1,400
13	3,050	3,200	1,930	e2,400	2,830	3,740	6,590	11,300	12,700	2,740	1,580	1,410
14	3,100	3,260	e1,900	e2,440	2,810	3,570	7,000	10,800	11,900	2,740	1,550	1,490
15	3,020	3,350	e1,900	e2,500	2,820	3,520	8,060	10,100	10,700	2,760	1,550	1,930
16	3,040	3,330	e2,100	e2,450	2,810	3,430	8,840	9,770	9,720	2,840	1,590	1,780
17	3,120	3,290	e2,300	e2,450	2,760	3,440	9,260	10,300	8,880	2,660	1,610	1,570
18	3,150	3,290	2,720	e2,400	2,750	3,410	10,500	11,500	8,210	2,460	1,590	1,760
19	3,140	3,400	2,500	e2,340	2,740	3,400	11,700	13,000	7,700	2,260	1,580	1,960
20	3,090	3,400	2,580	e2,300	2,710	3,450	11,800	14,300	7,030	2,130	1,540	2,100
21	3,090	3,370	e2,430	e2,260	2,660	3,430	12,000	15,000	6,280	2,040	1,510	2,050
22	3,090	3,270	e2,430	e2,200	2,680	3,490	12,100	16,600	5,720	1,950	1,490	2,030
23	3,130	3,190	e2,500	e2,150	2,700	3,500	10,800	18,100	5,380	1,870	1,460	2,070
24	3,150	3,200	e2,550	e2,100	2,770	3,480	9,590	19,100	5,130	1,820	1,460	2,150
25	3,100	3,210	e2,600	e2,200	2,830	3,550	9,040	19,700	4,850	1,790	1,490	2,180
26	3,090	3,170	e2,630	2,090	2,850	3,580	9,270	20,600	4,580	1,730	1,650	2,110
27	3,090	3,110	e2,680	2,060	2,880	3,570	10,500	21,000	4,330	1,780	1,550	2,110
28	3,130	3,110	e2,700	2,070	2,930	3,570	11,900	20,800	4,060	1,710	1,640	2,090
29	3,350	3,070	e2,720	2,440	---	3,790	11,900	19,400	3,840	1,680	1,770	2,060
30	3,650	3,020	e2,750	2,600	---	3,980	11,200	18,600	3,620	1,650	1,670	2,040
31	3,550	---	2,700	2,710	---	4,180	---	18,100	---	1,630	1,600	---
Total	94,140	97,260	72,010	79,330	80,630	112,640	243,140	437,870	278,530	76,030	51,040	52,830
Mean	3,037	3,242	2,323	2,559	2,880	3,634	8,105	14,120	9,284	2,453	1,646	1,761
Max	3,650	3,470	3,050	3,150	3,130	4,180	12,100	21,000	16,900	3,410	1,870	2,180
Min	2,570	3,020	1,120	2,060	2,660	2,980	4,160	9,770	3,620	1,630	1,460	1,400
Ac-ft	186,700	192,900	142,800	157,400	159,900	223,400	482,300	868,500	552,500	150,800	101,200	104,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895-99, 1906-2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	3,013	2,875	2,352	2,310	2,803	4,473	7,206	15,480	18,560	7,710	3,592	2,790
Max	7,701	6,490	5,894	5,739	7,258	11,430	18,370	40,990	46,650	31,630	11,220	9,960
(WY)	(1983)	(1987)	(1987)	(1985)	(1962)	(1910)	(1962)	(1897)	(1921)	(1907)	(1907)	(1909)
Min	718	935	801	1,000	1,050	1,617	2,591	4,212	2,128	645	712	603
(WY)	(1935)	(1935)	(1909)	(1897)	(1898)	(1963)	(1963)	(1990)	(1934)	(1934)	(1934)	(1934)

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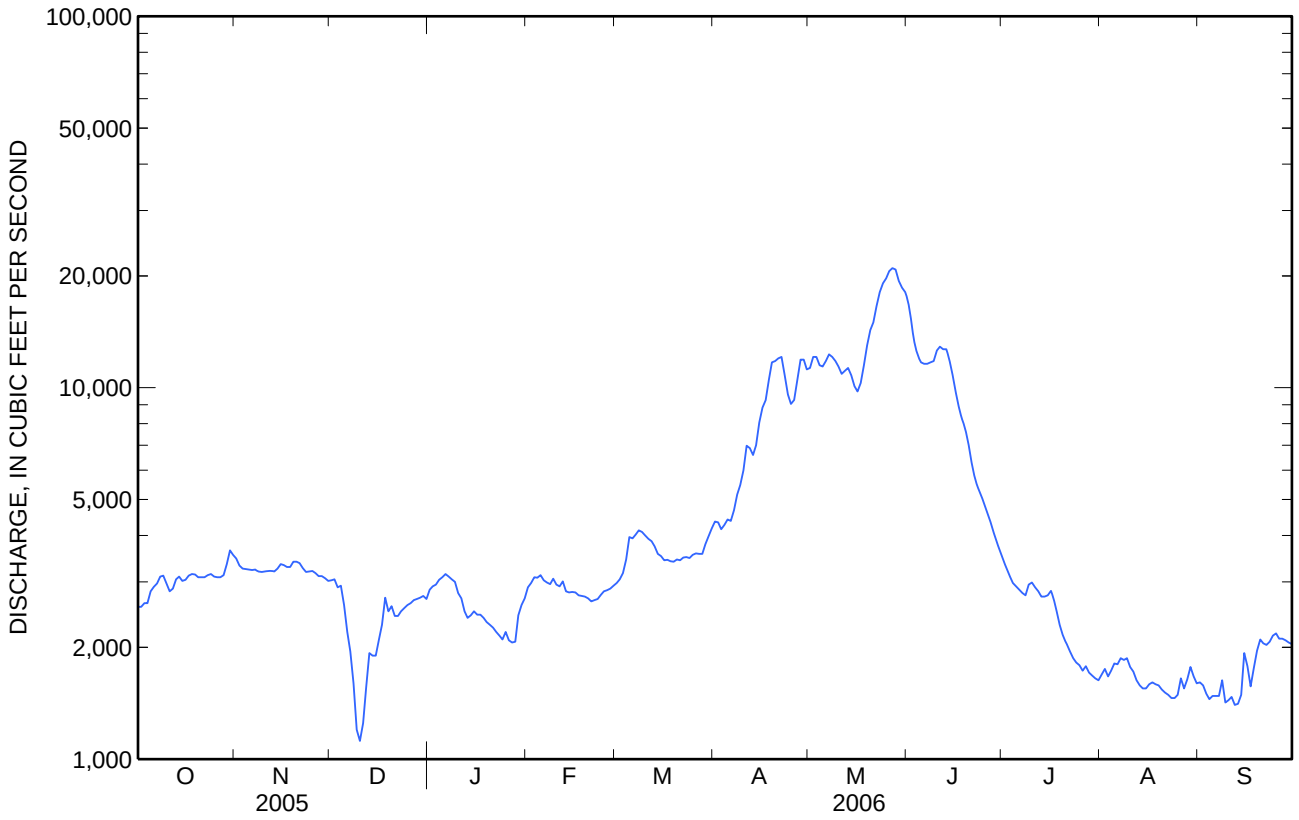
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1895-99, 1906-2006	
Annual total	2,207,080		1,675,450			
Annual mean	6,047		4,590		6,104	
Highest annual mean					12,280	1907
Lowest annual mean					1,805	1934
Highest daily mean	34,900	May 29	21,000	May 27	66,700	Jun 27, 1917
Lowest daily mean	1,120	Dec 10	1,120	Dec 10	380	Dec 5, 1934
Annual seven-day minimum	1,510	Dec 8	1,460	Sep 7	419	Jul 30, 1934
Annual runoff (ac-ft)	4,378,000		3,323,000		4,422,000	
10 percent exceeds	16,800		11,700		14,900	
50 percent exceeds	3,140		3,040		3,400	
90 percent exceeds	2,360		1,630		1,500	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1928 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1941 to September 1981, March 1982 to current year.
WATER TEMPERATURE: May 1949 to September 1959, October 1964 to September 1981, March 1982 to current year.
SUSPENDED-SEDIMENT DISCHARGE: May 1930 to September 1984.

INSTRUMENTATION.--Water-quality monitor April 1985 to September 1989.

REMARKS.--Unpublished daily records of specific conductance obtained before water year 1965 were included in the determination of extremes for period of daily record and are available in files of district office.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,250 microsiemens/cm, Dec 1, 1967; minimum daily, 255 microsiemens/cm, Jun 30, :TAB:1978.
WATER TEMPERATURE: Maximum, 30.0°C, Aug 13, 1958, Jul 5, 6, 8, 12, Aug 5, 2001, Jul 9, 14, 2002, Jul 21, 2003; minimum, 0.0°C, on many days during winter period each year.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 66,000 mg/L, Jul 11, 1936; minimum daily, 19 mg/L, Sep 30, 1974.
SEDIMENT LOADS: Maximum daily, 2,230,000 tons, Jul 11, 1936; minimum daily, 54 tons, Sep 27, 1956.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 1,240 microsiemens/cn, Dec 11; minimum observed, 310 microsiemens/cm, Jun 15.
WATER TEMPERATURE: Maximum observed, 29.5°C, Jul 21; minimum observed, 0.0°C, several days in Dec, Jan, and Feb.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Date	Time	Gage height, feet (00065)	Instan-taneous dis-charge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)
Dec								
19...	0845	6.33	2,480	8.2	880	-1.0	.0	571
Mar								
15...	0815	6.80	3,650	8.5	740	3.0	3.5	467
May								
05...	0815	9.22	11,700	7.8	360	16.0	15.0	225
31...	0815	10.83	18,700	8.1	350	18.0	16.0	208
Jul								
25...	0850	5.29	1,850	8.5	650	30.0	27.0	410

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
[Remark codes: M, presence verified but not quantified.]

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)	Hydrogen ion, water, fltrd, calcd, mg/L (00191)
Dec						
19...	0845	2,480	880	.0	571	.00001
Mar						
15...	0815	3,650	740	3.5	467	
May						
05...	0815	11,700	360	15.0	225	.00002
31...	0815	18,700	350	16.0	208	.00001
Jul						
25...	0850	1,850	650	27.0	410	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
[Remark codes: M, presence verified but not quantified.]

Date	Time	Instantaneous discharge, cfs (00061)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)	Hydrogen ion, water, fltrd, calcd, mg/L (00191)
Dec						
19...	0845	2,480	880	.0	571	.00001
Mar						
15...	0815	3,650	740	3.5	467	
May						
05...	0815	11,700	360	15.0	225	.00002
31...	0815	18,700	350	16.0	208	.00001
Jul						
25...	0850	1,850	650	27.0	410	

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SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY INSTANTANEOUS VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	780	820	770	800	770	800	380	350	---	---	---
2	880	780	830	770	800	790	840	390	360	---	---	---
3	880	830	840	760	780	810	830	380	390	---	---	---
4	890	830	890	760	770	790	820	370	400	---	---	---
5	890	820	850	760	770	790	840	360	420	---	---	---
6	880	830	840	730	760	780	830	370	410	---	---	---
7	900	830	860	740	770	750	820	370	400	---	---	---
8	---	810	870	740	770	740	810	370	380	---	---	---
9	840	800	910	740	780	720	810	350	350	---	---	---
10	830	800	980	---	780	740	810	360	360	---	---	---
11	830	800	1,240	780	780	740	780	350	380	---	---	---
12	840	790	1,080	810	780	740	780	360	350	---	---	---
13	840	790	960	810	790	760	720	370	340	---	---	---
14	840	790	960	830	790	780	670	360	320	---	---	---
15	840	780	970	820	780	790	690	360	310	---	---	---
16	840	790	950	810	790	800	680	370	320	---	---	---
17	840	790	930	820	800	800	610	400	340	---	---	---
18	840	790	900	830	800	810	560	390	340	---	---	---
19	840	800	870	840	800	820	530	370	350	---	---	---
20	830	790	850	820	800	820	490	350	360	---	---	---
21	820	790	850	820	810	810	460	360	370	---	---	---
22	850	800	840	830	800	820	450	360	380	---	---	---
23	870	770	840	830	800	840	430	380	380	---	---	---
24	800	---	830	840	800	840	420	360	410	---	---	---
25	800	---	810	830	810	860	440	360	420	---	---	---
26	800	790	790	840	810	850	470	350	430	---	---	---
27	800	800	790	850	800	830	490	380	450	---	---	---
28	---	800	780	850	850	820	460	340	460	---	---	---
29	780	760	770	860	---	820	420	350	470	---	---	---
30	830	780	770	850	---	830	390	350	480	---	---	---
31	860	---	780	820	---	820	---	350	---	---	---	---
Mean	---	---	879	---	792	796	638	365	383	---	---	---
Max	---	---	1,240	---	850	860	840	400	480	---	---	---
Min	---	---	770	---	760	720	390	340	310	---	---	---

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY INSTANTANEOUS VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	11.0	1.0	2.0	2.0	6.5	10.0	15.0	18.0	---	---	---
2	19.0	9.0	1.0	1.0	3.0	5.0	10.5	15.0	18.0	---	---	---
3	17.0	9.0	3.0	2.0	3.0	7.0	13.0	16.0	20.0	---	---	---
4	17.0	9.0	2.0	2.0	3.0	9.0	12.0	17.0	19.0	---	---	---
5	16.0	10.0	0.0	0.0	2.0	6.0	13.0	16.0	21.0	---	---	---
6	16.0	10.0	0.0	1.0	2.0	6.0	11.0	15.0	21.0	---	---	---
7	15.5	9.0	0.0	0.0	1.0	8.0	13.0	16.0	23.0	---	---	---
8	---	8.5	0.0	2.0	2.0	7.0	12.0	17.0	22.0	---	---	---
9	15.0	8.5	0.0	1.0	2.0	7.0	14.0	16.0	22.0	---	---	---
10	12.0	10.0	0.0	---	2.0	6.0	14.0	16.0	21.0	---	---	---
11	11.0	8.0	1.0	0.0	0.0	5.0	14.0	15.0	20.0	---	---	---
12	13.0	8.0	0.0	0.0	2.0	4.0	15.0	15.0	22.0	---	---	---
13	13.0	9.0	1.0	0.0	0.0	5.5	16.0	18.0	22.0	---	---	---
14	14.0	8.0	0.0	0.0	0.0	5.0	13.0	18.0	21.0	---	---	---
15	15.0	7.0	0.0	1.0	3.0	4.0	16.0	18.0	21.0	---	---	---
16	14.0	5.0	0.0	1.0	2.0	6.0	16.0	20.0	19.0	---	---	---
17	14.0	4.0	0.0	0.0	3.0	6.0	14.0	20.0	21.0	---	---	---
18	13.5	4.0	1.0	0.0	2.0	9.0	13.0	21.0	21.0	---	---	---
19	13.0	6.0	1.0	1.0	2.0	7.0	13.0	22.0	21.0	---	---	---
20	13.0	5.0	0.0	2.0	4.0	8.0	11.0	22.0	22.0	---	---	---
21	13.5	5.0	2.0	0.0	3.0	7.0	11.0	20.0	23.0	---	---	---
22	15.0	3.5	0.0	2.0	1.0	8.0	12.0	21.0	24.0	---	---	---
23	13.0	3.0	1.0	0.0	2.5	10.0	14.0	19.0	22.0	---	---	---
24	14.0	---	0.0	0.0	4.5	10.0	13.0	19.0	25.0	---	---	---
25	13.0	---	1.0	0.0	5.0	12.0	12.0	19.0	23.0	---	---	---
26	15.0	3.0	1.0	2.0	5.0	11.0	16.0	20.0	23.0	---	---	---
27	12.0	3.0	0.0	1.0	4.0	10.0	16.0	18.0	22.5	---	---	---
28	---	1.5	0.0	2.0	5.0	11.0	16.0	17.5	26.0	---	---	---
29	12.0	1.0	1.0	3.0	---	10.0	15.0	16.0	24.0	---	---	---
30	12.0	1.0	0.0	2.0	---	10.0	16.0	15.5	25.0	---	---	---
31	11.0	---	0.0	2.0	---	10.0	---	17.0	---	---	---	---
Total	---	---	17.0	---	70.0	236.0	404.5	550.0	652.5	---	---	---
Mean	---	---	0.5	---	2.5	7.6	13.5	17.7	21.8	---	---	---
Max	---	---	3.0	---	5.0	12.0	16.0	22.0	26.0	---	---	---
Min	---	---	0.0	---	0.0	4.0	10.0	15.0	18.0	---	---	---